

Attorney Docket No.
AUROR1190-1

Serial No. 10/767,401
Customer ID: 38396

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IN THE DRAWINGS:

Please replace the drawings with the attached replacement sheets.

REMARKS

Favorable reconsideration of this application is requested in view of the foregoing amendments and the following remarks. Claims 12, 19-25, 34, 42-44, 54-58, 60, 62 and 66 are pending in the application. Claims 28-33 are cancelled without prejudice or disclaimer. Claims 1-11, 13-18, 26-27, 35-41, 45-53, 59, 61 and 63-65 were cancelled without prejudice or disclaimer.

At page 2 of the Action, the Examiner objects to the drawings. Corrected replacement drawings are herewith attached and entered by amendment above. Annotated drawings are also attached to show the corrections. The corrections to Figure 1 of this application show at least one user receiving a broadcast signal and conveying a signal to an input port of the another downstream combiner as the another upstream signal.

Accordingly, withdrawal of this objection is respectfully requested.

At page 3 of the Action, the Examiner provisionally objects to claims 28-33. Claims 28-33 are canceled with out prejudice of disclaimer and this is not a narrowing amendment.

Accordingly, withdrawal of this objection is respectfully requested.

Claims 54-58, 60, 62 and 66 stand rejected under 35 UCS 112(1) as not complying with the written description requirement. These limitations are described in claims 45 and 58 as originally filed and, therefore, these limitations are part of the specification as originally filed. These connections are within the skill of those of skill in the art of hybrid fiber coax engineering. The corrections to Figure 1 of this application discussed above depict these connections (limitations). Paragraph [0025] is amended to explicitly recite these limitations; support for which is found in claims 45 and 58 are originally filed.

Accordingly, withdrawal of this rejection is respectfully requested.

Claims 12, 19-25, 28-34 and 44 were rejected under 35 USC 103 as obvious over Giles (5,633,741) in view of Dail (5,864,748).

The pending method claims require propagating a downstream signal on an optical signal conductor from an upstream combiner to a downstream combiner, wherein the downstream signal includes an analog video broadcast signal; counter-propagating an upstream signal on the optical signal conductor from the downstream combiner to the upstream combiner, wherein the upstream signal includes a digital signal; propagating another downstream signal on another optical signal conductor from another upstream combiner to another downstream combiner, wherein the another downstream signal includes a digital signal; and counter-propagating another upstream signal on the another optical signal conductor from the another downstream combiner to the another upstream combiner, wherein the another upstream signal includes an analog return signal.

The pending apparatus claims require an upstream combiner including an upstream bi-directional common port; an optical signal conductor coupled to the upstream bi-directional common port of the upstream combiner; a downstream combiner including a downstream bi-directional common port coupled to the optical signal conductor, wherein the downstream combiner directs an analog video optical carrier to a bandpass input-output port that is connected by an optical fiber to an analog broadcast receiver; another upstream combiner including another upstream bi-directional common port; another optical signal conductor coupled to the another upstream bi-directional common port of the another upstream combiner; another downstream combiner including another downstream bi-directional common port coupled to the another optical signal conductor, wherein an optical output of an analog return transmitter is connected by a separate optical transmission fiber to an input-output port of the another downstream combiner, which passes the analog return optical signal to the common port and then onto the another optical signal conductor; a drop device coupled to a downstream output port of the downstream combiner; a customer premises equipment digital receiver input coupled to the drop device, the customer premises equipment digital receiver input including an input

optical connector; an add device coupled to a downstream input port of the another downstream combiner; and a customer premises equipment digital receiver output coupled to the add device, the customer premises equipment digital receiver output including an output optical connector, wherein the input optical connector and the output optical connector define physically different, non-interchangeable form factors.

The Giles reference is directed to suppression of interaction from four wave mixing caused by close wave spacing (in frequency space) and either a) low dispersion biver or b) fiber links that include dispersion shifted or dispersion compensating fiber. Referring to this application as originally filed, the claimed invention provides significant advantages. Specifically, referring to paragraph [0015] of this application, the presently claimed invention is particularly advantageous in embodiments of the invention where one or more signals have stringent signal-to-noise and interference requirements, and where one or more of the signals causing interference are apt to have similar waveforms, such as idle mode waveforms in a WDM Ethernet protocol context. Referring to paragraph [0016] of this application, counter-propagation of the optical carriers for downstream analog video and upstream digital data on a common first optical transmission fiber, together with counter-propagation of the optical carriers for upstream analog return and downstream digital data on a common second optical transmission fiber (distinct from the downstream analog video transport) minimizes the number of optical fibers required to provide both analog video and high-speed data services while simultaneously minimizing the level of cross-talk interference of the digital data on the analog video signals. Referring to paragraph [0038] of this application, counter-propagation of the optical carrier(s) transporting analog video and the optical carrier(s) transporting digital data maximizes the nonlinear optical walk-off factor and, therefore, minimizes the net magnitude of the nonlinear optical cross-talk between the optical carrier(s) transporting the digital signals and the optical carrier(s) transporting the analog video signals. The invention is particularly advantageous in

contexts where one or more signals are apt to have similar waveforms, such as idle mode waveforms in a CWDM protocol. Therefore, the Giles reference as a whole is directed to solving a completely different problem than the problems solved by the claimed invention.

Although the Dail reference discloses downstream and upstream analog signals, one of ordinary skill in the art at the time this application was filed would have no motivation to combine the elements of Dail with the elements of Giles for the following reasons. Turning to the section of Giles cited by the Examiner (related art, col. 1, lines 43-47) Giles explicitly notes that these analog transmission and CTV are not the focus of near-term commercial activity. Turning to the section of Dail cited by the Examiner (Fig. 2, abstract), Dail is only counter propagating on a single trunk 34. Turning to column 4, lines 44-62, each cable trunk 34 is supplied with a low frequency analog signal, a high frequency digital downstream signal and a subscriber-generated upstream signal. Turning to Fig. 2 of Dail, it is clear from the schematic diagram that the lack of the subscriber- and does not disclose or suggest both counter propagating a downstream digital signal with an upstream analog signal on a first optical signal conductor and counter propagating an upstream digital signal with a downstream analog signal on a second optical signal conductor for the following reasons. Still referring to Fig. 2 of Dail, the links of Dail between 280_1 - 280_n and 281_1 - 280_n are counter propagating, but they are all digital. Still referring to Fig. 2 of Dail, the links of Dail between 280_1 - 280_n and 282_1 - 282_n are counter propagating, but they are all analog. Therefore, the Examiner is using impermissible hindsight in combining a minor historical comment in the related art section of Giles with Dail to meet the limitations of the claimed invention.

Accordingly, withdrawal of this rejection is respectfully requested.

Claim 42 was rejected under 35 USC 103 as obvious over Giles (5,633,741) in view of Dail (5,864,748) in view of Kim (6,445,472) in view of Schemmann (2006/0165413).

The Kim and/or Schemmann references do not obviate the above discussed lack of motivation to one of ordinary skill in the art of art of hybrid fiber coax engineering to combine Giles and/or Dail.

Accordingly, withdrawal of this rejection is respectfully requested.

Claim 43 was rejected under 35 USC 103 as obvious over Giles (5,633,741) in view of Dail (5,864,748) in view of Shutterly (4,662,715).

The Shutterly reference does not obviate the above discussed lack of motivation to one of ordinary skill in the art of art of hybrid fiber coax engineering to combine Giles and/or Dail.

Accordingly, withdrawal of this rejection is respectfully requested.

Claims 54, 57 and 58 were rejected under 35 USC 103 as obvious over Giles (5,633,741) in view of Dail (5,864,748) in view of Shutterly (4,662,715) in view of Cubukciayan (5,289,554).

The Shutterly and/or Cubukciayan references do not obviate the above discussed lack of motivation to one of ordinary skill in the art of art of hybrid fiber coax engineering to combine Giles and/or Dail.

Accordingly, withdrawal of this rejection is respectfully requested.

Claims 55-56, 60, 62 and 66 were rejected under 35 USC 103 as obvious over Giles (5,633,741) in view of Dail (5,864,748) in view of Shutterly (4,662,715) in view of Cubukciayan (5,289,554) in view of Atlas (6,097,533).

The Shutterly and/or Cubukciayan and/or Atlas references do not obviate the above discussed lack of motivation to one of ordinary skill in the art of art of hybrid fiber coax engineering to combine Giles and/or Dail.

Accordingly, withdrawal of this rejection is respectfully requested.

Other than as explicitly set forth above, this reply does not include acquiescence to statements in the Office Action. In view of the above, all the claims are considered patentable and allowance of all the claims is respectfully requested. The Examiner is invited to telephone

the undersigned (at direct line 928-226-1073) for prompt action in the event any issues remain that prevent the allowance of any pending claims.

In accordance with 37 CFR 1.136(a) pertaining to patent application processing fees, Applicant requests an extension of time from January 17, 2008 to April 17, 2008 in which to respond to the Office Action dated October 17, 2007. A notification of extension of time is filed herewith. A request for continuing examination is also filed herewith.

The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3204 of John Bruckner PC.

Respectfully submitted,

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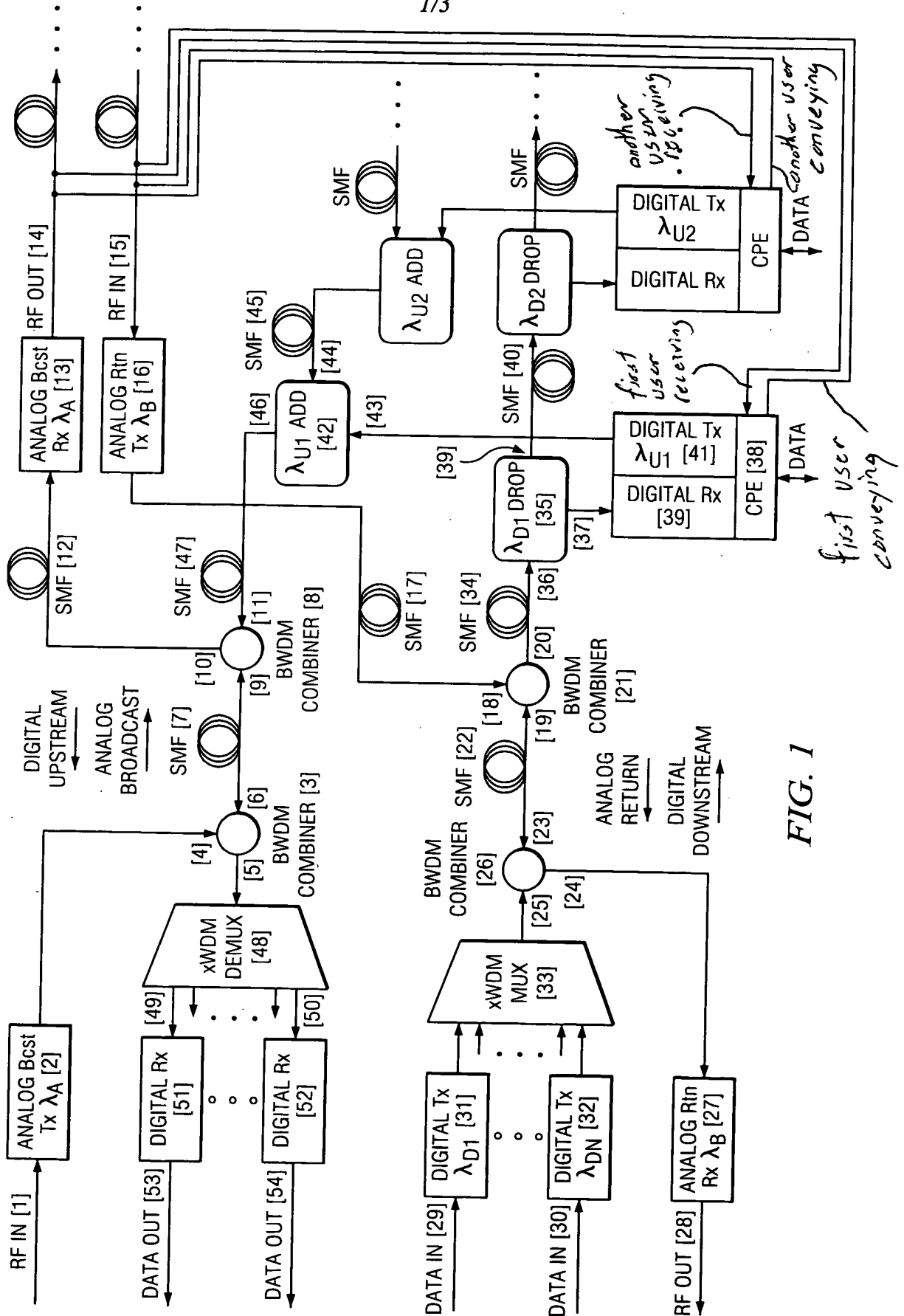


FIG. 1

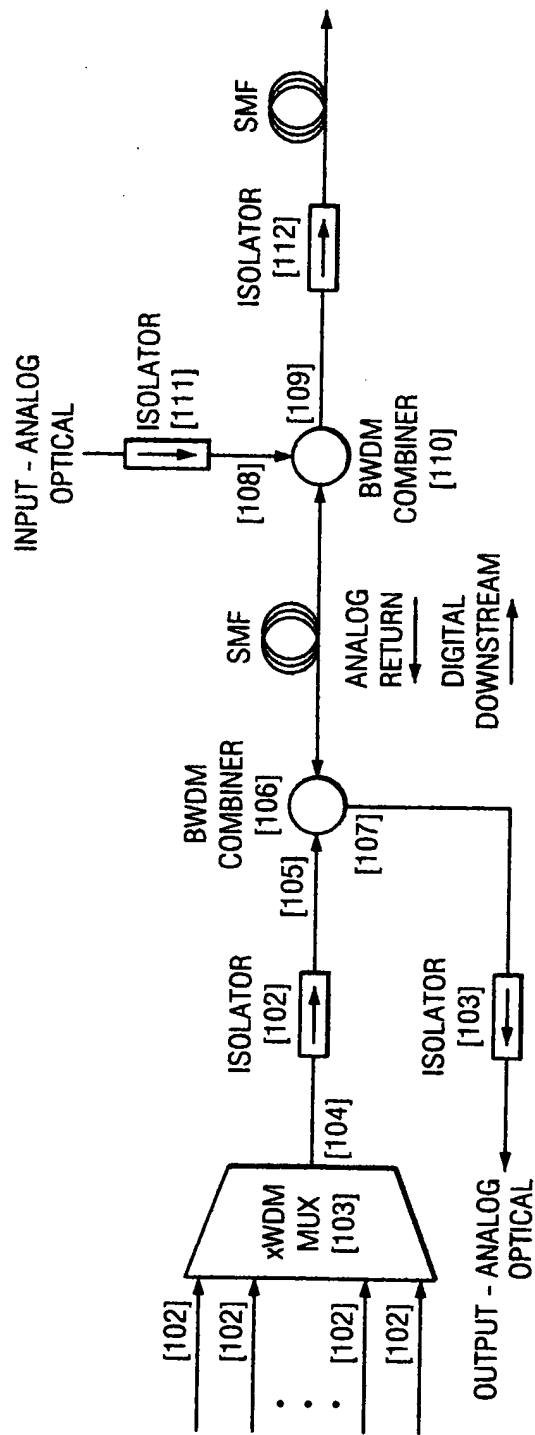


FIG. 2

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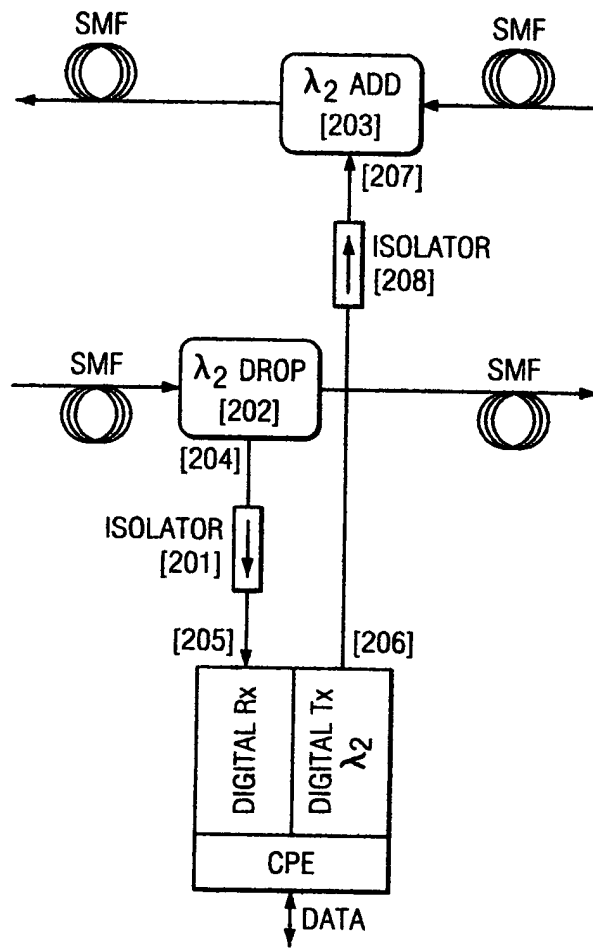


FIG. 3